

WHAT IS CLAIMED IS:

- 1 1. A flat panel for a cathode ray tube comprising:
2 an outer surface having a flat configuration; and
3 an inner surface having a non-spherical, convexly curved
4 configuration relative to the outer surface and satisfying formula 1,

$$Y_1 \leq Y_2 \dots \dots \dots (\text{formula 1})$$

5
6 wherein Y_1 represents a vertical distance between the outer surface and a
7 refracted screen image on a central axis of the panel, and Y_2 represents a vertical
8 distance between the outer surface and the refracted screen image in peripheral
9 areas other than the central axis of the panel.
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- 1 2. A flat panel for a cathode ray tube as claimed in claim 1, wherein
2 the panel has a high transmission ratio equal to or greater than about 60%.

- 1 3. In a cathode ray tube comprising a funnel having a neck part and an
2 opening part, an electron gun provided at a front end portion of the neck part in
3 the funnel for emitting electron beams, a deflection yoke for deflecting the
4 electron beams emitted from the electron gun, a shadow mask for discriminating
5 the electron beams deflected by the deflection yoke, and a panel coupled in the
6 opening part of the funnel and provided with a phosphor surface inside for

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7 realizing a screen image by the electron beams discriminated by the shadow
8 mask, the panel comprising:

9 an outer surface having a flat configuration; and

10 an inner surface having a non-spherical, convexly curved
11 configuration relative to the outer surface and satisfying formula 1,

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$$Y_1 \leq Y_2 \dots \dots \dots (\text{formula 1})$$

13 wherein Y_1 represents a vertical distance between the outer surface and a
14 refracted screen image on a central axis of the panel, and Y_2 represents a vertical
15 distance between the outer surface and the refracted screen image in peripheral
16 areas other than the central axis of the panel.

1 4. A flat panel for a cathode ray tube as claimed in claim 3, wherein
2 the panel has a high transmission ratio equal to or greater than about 60%.

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